

CLAIMS

1. Method of producing a compact movable structure (10) for a light shaping unit comprising the steps of:
 5 forming a light shaping unit (12) from a material (30) provided on a carrier (32, 34, 36) of another material, (step 58), and
 forming a micromechanical structure (12, 16, 18, 22, 29, 28) from the carrier, (step 60), wherein
 10 the forming of the light shaping unit takes place before the forming of the micromechanical structure.
2. Method according to claim 1, further comprising the step of depositing the material for the light shaping unit on the carrier (56).
- 15 3. Method according to claim 2, wherein the material for the light shaping unit is spun on the carrier.
4. Method according to any previous claim, wherein the light shaping unit is formed through embossing.
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5. Method according to any previous claim, wherein the micromechanical structure is formed under the light shaping unit.
6. Method according to claim 5, wherein the forming of the micromechanical structure comprises forming the structure from above.
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7. Method according to any previous claim, wherein the forming of the micromechanical structure comprises forming of an opening from the bottom of the carrier (step 62) in a direction towards the light shaping unit in order to provide a light passage channel.
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8. Method according to claim 7, wherein the light shaping unit (12) serves as an etch stop in the forming of the opening.
- 35 9. Method according to claim 7 or 8, wherein an optical component (24) is attached to the bottom side of the micromechanical structure (step 66) in order to enable the projection of light on or the reception of light from the light shaping unit through the light passage channel.
- 40 10. Method according to any of claims 7 – 9, wherein the light passage channel is a cavity.
11. Method according to any of claims 7 – 9, wherein the light passage channel is a waveguide.

12. Method according to any previous claim, wherein the material for the light shaping unit is a polymer.
- 5 13. Method according to any previous claim, wherein the carrier comprises silicon.
14. Method according to any previous claim, wherein the light shaping unit is a lens.